

# Elements of a Coordinated System Of Vital Records and Statistics

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**T**HE TEEN-AGER who needs a birth certificate to prove he is old enough to work and the demographer who needs global data to forecast world population are both served by the vital statistics system. Whether they are served well or badly depends on the functioning of a multitude of complex mechanisms—the local, State, Federal, and international units that make up the vital statistics system. These units collect and preserve vital records, perform essential services to the public in relation to the records, and produce the tabulated data that form the body of vital statistics.

## Problems of Coordination

The most important problem facing the diverse mechanisms that make up a system of vital statistics is how to function as a coordinated whole. The individual units in the system may be likened to pieces of a mosaic. How can they be fitted together to form a complete picture, without blank spaces and overlapping? How can the methods and procedures of these

diverse units intermesh to produce a smooth-working, coordinated system?

“Coordination” is a much-abused word that should be defined at the outset. In this paper it does not mean the kind of coordination that implies a coordinator. The units that make up the vital statistics system are autonomous and will no doubt remain so. Any coordination that applies to these units must be the kind that develops through voluntary agreement on objectives, approaches, procedures, and the share of the total job that is appropriate to each.

The kind of coordination considered here is independent of organizational structure. It does not come by decree from above, and is not necessarily advanced by concentrating power in a centralized authority. For even though all record-collecting and statistical agencies might conceivably be centralized under a unified command, there would still have to be faced the original problem of coordination—of meshing the goals and procedures of statistics producers with those of statistics consumers, of relating the far-flung operations to the specialized needs of people outside the system for data on specific subject matter.

## *Agreement on Objectives*

The problems of developing a coordinated system of vital records and statistics, therefore, should be approached primarily in terms of getting voluntary agreement by all the component units. What are the common objectives? Does each unit visualize the vital statistics system as a whole, not just as a miscellaneous mixture of little parts? In terms of the system as

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a whole, does each unit know where its own job begins and where that of the others leaves off? Are the right organizational pieces in the right places? In sharing the total job, have gaps been left?

Coordination is not a single problem. To obtain a fully complementary system of vital records and vital statistics, at least four distinct problems must be solved.

First, there is the matter of developing a proper working relationship among the various agencies producing vital records and vital statistics at each level of government—local, State, national, and international. We might call this intralevel or horizontal coordination. Much concern has been expressed, for example, about State and Federal governments in which various units allegedly publish noncomparable, unnecessary, or overlapping data that fail to meet much of the data needs of consumers. Criticism of this type in other fields of statistics led to the creation of the division of statistical standards in the U. S. Bureau of the Budget and to various other recommendations by commissions and other investigating bodies.

The second problem is to coordinate the objectives and practices of the local, State, national, and international vital statistics agencies. This interlevel coordination is of particular importance since vital statistics are produced in a vertical, step-up process, in which records or data move straight up from the smallest geographic divisions to the largest. For example, good vital statistics at the State level depend on records produced in local subdivisions; good national vital statistics depend on comparable material from 57 independent registration areas, and so on. Because of the massive vital record problem in this country, much work and effort have been directed toward vertical coordination, and considerable progress has been made in developing uniform standards, definitions, certificate forms, tabulations, and other procedures.

#### *Orientation to Subject*

The third problem is orientation of vital statistics to the broad variety of subject matter which they help to illuminate. Intersubject coordination is concerned with the use of vital statistics in relation to other data on the social, health, economic, geographic, and other char-

acteristics of populations. Special studies would give the answers to most of the problems in this area, and certainly the vital statistics system, operating at all levels of government, has the potential resources to conduct studies along many fronts. What studies are most needed? Which particular office is in the best position to carry it out? How can the study be so planned and conducted that its results will be applicable not only to the office that made it but to all other offices and agencies with similar problems? Certain types of studies are more appropriately made at the national level. A conspicuous example is a national health survey, machinery for which might be developed as a means of obtaining morbidity data from the general population to serve a variety of health needs. The skills incorporated in such a mechanism could be made available, upon request, to State agencies and nonofficial health organizations.

The fourth problem has to do with the coordination of various data that relate to the same individual, regardless of where these records were originally created and placed on file, so that the major events in his life may be linked and related to one another. Of necessity, such records are filed, if at all, where the event occurred, so that if he moves around much, his records may be scattered all over the United States and even in foreign countries. One office has his birth certificate, another his marriage license, while still others have his military, social security, and work records. His clinical records are scattered among the files of all the hospitals and physicians that have ever treated him. To pull copies of these records together, for the individual's own use, or for health control purposes, or for longitudinal studies, has become extremely difficult. Because of the political implications of attaching an identity number to the individual, and because of the substantial technical problems involved as well as differences of opinion as to the utility of such records, little is being done along this line.

#### **Basic Terms Defined**

It might be well to define our basic terms before discussing the elements that make for coordination:

“A coordinated system of vital records and

statistics" involves agencies at all levels of government that are responsible for the registration, collection, processing, and interrelation of vital records and the production of vital statistics derived from them. It includes mechanisms for improving methodology, for promoting internal consistency, efficiency, and economy, and for broadening the usefulness of vital records and statistics.

"Vital records" are certificates of death, fetal death, birth, legitimation, legal change of name, marriage, annulment of marriage, divorce, immigration, and naturalization.

"Vital statistics" are the statistical by-products of vital records.

"Related statistics" include population and morbidity statistics.

Immigration and naturalization records are included in the definition of vital records because they are recorded in much the same way and are used for similar purposes, even though historically they have not been handled by the same branch of government that handles other vital records.

Many other public records on individuals are officially collected and maintained—such as those of military service, social security, and professional licensing. As circumstances warrant, these might be considered for possible coordination with vital records.

It will be noted that morbidity statistics are classed as related statistics rather than as vital statistics. By historical accident both morbidity and vital statistics are often produced by the same government agencies, but their fundamental nature is quite different. Morbidity statistics are, of course, closely linked to vital statistics by a common classification for sickness and cause of death. But the legal and personal uses of morbidity records are extremely limited—most people, in fact, never see their own sickness records. Even though morbidity statistics may be part of the workload of a vital statistics agency, they are not an intrinsic part of the vital statistics system.

#### **Elements of a Coordinated System**

The importance of vertical coordination has already been mentioned, and the accompanying table is a first attempt toward mapping a distribution of the responsibilities of the several levels

of government with respect to vital statistics. In presenting my personal viewpoint as to where the primary responsibilities lie, it is not my intention to suggest a limitation of activity or functions of any of the units. Certainly there is room for constructive thinking on each of the elements at all levels of government.

Each person operating in a vital statistics office—whether at the local, State, national, or international level—tends to think of his own particular problems as discrete in nature, and his own office as a sovereign body. The time has come, however, when it is necessary for all those who hold responsible positions in units of the system to reexamine what they are doing with reference to the system as a whole in terms of the impact on the users of the records and of the resultant statistics. Perhaps the great advances of the future will come largely from a better concept of the system as a whole and a realization of the true functions, responsibilities, and potentialities of its parts.

In a dynamic field like vital records and vital statistics, which must continue to change in response to the needs of an ever-changing world, it will never be practical to set final goals. The 10 elements described below and summarized in the table are not to be regarded as final goals. They are proposed rather as basic components of the "next stage" in developing a coordinated system of vital records and vital statistics.

#### *Completeness, Accuracy, Timeliness*

The first element is completeness, accuracy, and timeliness in the registration of vital events. Behind these words is a never-ending struggle to obtain and secure the active cooperation of several hundred thousand official and semipublic personages who fill out certificates—physicians, hospital personnel, midwives, coroners, funeral directors, and others. To get in this country a reliable statement of the cause of death, for example, requires the understanding and cooperation of some 210,000 practicing physicians, who need instruction and reinstruction with every revision of the International Classification of Diseases, Injuries, and Causes of Death. To achieve satisfactory birth registration in two-thirds of the States has taken a full half-century of patient effort with physicians and

## Elements of a Coordinated System of Vital Records and Statistics <sup>1</sup>

ELEMENTS	Local responsibility	State responsibility <sup>1</sup>
1. Completeness, accuracy, and timeliness of vital records (except immigration and naturalization).	Primary responsibility for accurate and timely collection.	Primary responsibility for developing and maintaining State and local procedures in collection, and for consultation.
2. Preservation and protection of vital records, and service to the public.	Participation with State vital statistics office.	Primary responsibility for methods used, results obtained, and services rendered.
3. Focus of coordination: Definitions, classifications, laws, certificate forms, interstate and international procedures, and consistency control of vital statistics.	Participation with State vital statistics office and application of approved methodology.	Participation with NOVS in development of standards; primary responsibility for the application of methods and for consistency within the State.
4. Training and education of personnel.	Training programs for local purposes.	Inservice training of State and local personnel; participation in national training programs and academic training.
5. Vital records of American citizens abroad and of naturalized citizens at home and abroad.	Collaboration with State programs.	Collaboration with national agencies; and representation of local use requirements in national programs.
6. Annual and cyclic vital statistics (including life tables).	Production of local statistics; collaboration with State programs.	Primary responsibility for production of State and local vital statistics, including methodological research.
7. Special studies via vital and social statistics.	Local studies.	Planning and execution of State and local studies.
8. Population statistics and population estimates.	Participation with State on methods of research and collection of data.	Participation with Bureau of the Census and NOVS on methods research and collection of data.
9. Morbidity statistics, including morbidity reporting and health surveys.	Administrative responsibility for local morbidity reporting and local health surveys.	Primary responsibility for morbidity reporting and health surveys. Participation with Public Health Service on methods of research and development of standards and procedures.
10. A national vital statistics index (when and if established by law).	Participation with State vital statistics office.	Participation with Federal agency in developing standards and methods for establishing, and primary responsibility for implementing State portions.

<sup>1</sup> Includes Territories and independent registration cities (New York City; Boston; Washington, D. C.; Baltimore; and New Orleans).

midwives, as well as continuous education of the general public. The battle in the remaining States should be won within the next decade.

The drive toward complete and accurate registration was given a decisive impetus early in World War II, when defense plants and public agencies of all kinds insisted on proof of citizenship and other pertinent facts. As a re-

sult, State and local offices were swamped with demands to produce certified copies of records. This led to two permanent gains—a new public awareness of the value of complete and accurate registration, and more efficient procedures in State and local offices to cope with the increased public dependency on vital records.

Registration is primarily a local responsi-

## and the Locus of Responsibilities for These Elements

National responsibility	International responsibility	ELEMENTS
Conduct of special studies aimed at improving methods, consultation service on request.	Establishment of general principles to meet international needs.	1. Completeness, accuracy and timeliness of vital records (except immigration and naturalization).
Conduct of methods research, maintenance of exchange of information, and consultation.	Establishment of general principles to meet international needs.	2. Preservation and protection of vital records, and service to the public.
In collaboration with States, primary responsibility for standards and practices.	Primary responsibility for international coordination of practices.	3. Focus of coordination: Definitions, classifications, laws, certificate forms, interstate and international procedures and consistency control of vital statistics.
Establishment of training programs and centers, participation in international programs and collaboration with schools of public health.	Establishment of training programs and related activities.	4. Training and education of personnel.
Establishment of a Federal focus for vital records involving, among others, the Immigration and Naturalization Service, State Department, and NOVS.	Responsibility for the coordination of vital record practices between nations.	5. Vital records of American citizens abroad and of naturalized citizens at home and abroad.
Primary responsibility for production of national vital statistics, including methodological research.	International statistical publications and exchange of information on statistical methods between nations.	6. Annual and cyclic vital statistics (including life tables).
Responsibility for developing special studies of national significance and collaboration with States.	Responsibility for special studies of international significance.	7. Special studies via vital and social statistics.
Production of population data a primary responsibility of Bureau of the Census. Small area estimates should be produced in collaboration with NOVS and States.	Promotion of national censuses having the degree of consistency essential for international needs.	8. Population statistics and population estimates.
Primary responsibility for national public health surveys and national morbidity reporting standards, in collaboration with State health departments.	Promotion and implementation of a worldwide morbidity reporting mechanism and promotion of national health survey mechanisms.	9. Morbidity statistics, including morbidity reporting and health surveys.
Primary responsibility for developing standards and methods to be used, and maintenance of consistency control in its operation.	Responsibility for developing and promoting standards and methods to be used consistent with international needs.	10. A national vital statistics index (when and if established by law).

bility. A late State registrar put this point most aptly: "The local registrar knows the new baby of the Jones family as Johnny Jones; the State registrar knows him as a certificate and a number; and the National Office [of Vital Statistics] knows him as a statistic." Only at the local level do vital records reflect real people, living in real places. If the record is to be complete, the local registrar must be on the job. If

hospital, physician, funeral director, or midwife fails to fulfill responsibilities, it is the local registrar who, with tolerance and patience, must explain, persuade, and follow up until the person mends his ways.

This is a difficult and important task, carried out by part-time workers usually paid on a "per certificate" basis. It takes understanding on the part of the local registrar, and considerable

devotion to a cause. This does not come of its own accord. To develop such a group of local registrars is a prime responsibility of the State vital statistics office. It means carefully prepared manuals of instruction for the local registrar. It means field visits by the staff of the State office and consultation between them and the local registrar. It means occasional conferences of local registrars and formalized periods of instruction. But most of all, it means the creation of an awareness of the importance of the task. Everyone does a job better when he knows why it is important and how it fits into a larger pattern of services.

#### *Preservation and Protection of Records*

Preservation and protection of vital records and service to the public have long been a major responsibility of the State registrar. Huge concrete and steel vaults are located in almost every State to house the precious documents and to protect them from fire and flood. Toughness of paper, durability of ink, and protection against mildew and mold are matters of constant concern.

Protection of records also involves safeguarding them against alteration or theft. In the old days when practices were looser, it was not unknown for a person who was permitted to search the bound volumes of certificates to rip out and carry away one of these important documents. Imagine the temptation it would be to a souvenir collector if the birth certificate of one of our American Presidents were under his itching fingers, with no one watching!

Unwarranted disclosure of facts on certificates might embarrass or damage individuals. The registrar must therefore restrict access to records to persons who can demonstrate "a direct, tangible, and legitimate interest" in the specific record. At the same time he must minimize red tape in providing certifications to those who do have such an interest. It may be assumed that everyone wants ready access to his own record or to a certified copy, so that he may present it to the various public and private agencies that require it as a condition of employment, old age pensions, and other benefits. At the same time he may want the record withheld from individuals or agencies such as the press,

the courts, and law enforcement agencies. The framing of laws and regulations that will protect the confidentiality of the record and at the same time keep it accessible to those with a legitimate interest in it is one of the knottiest problems in the registration field. Whether a common ground can be found on which the many conflicting interests can meet is now being explored by the American Association of Registration Executives, the organization of State registrars.

#### *Focus of Coordination*

The third essential element is a focus of coordination, including definitions, classifications, model laws, certificate forms, interstate and international procedures, and control of consistency of national vital statistics.

The coordination of vital records and the maintenance of satisfactory consistency in the national vital statistics are responsibilities which must be focalized in a single national agency having the authority and means to implement them. Prior to 1946 the national focus was the Bureau of the Census, which served mostly as a statistical focus. In that year, when the Congress transferred the national vital statistics activity to the Public Health Service—in line with the fact that State and local jurisdiction of vital statistics resides in health agencies—the policy was made clear that the Federal agency should also serve as a focal point in resolving difficulties and inconsistencies in registration practices.

After years of trial and error, the National Office of Vital Statistics came to the realization that the way to serve as a focus of coordination is to engage in cooperative agreements resulting from joint planning. The answer to the need for a national focus of coordination has emerged through the development of the Public Health Conference on Records and Statistics. The conference is a permanent organization, recognized by the Association of State and Territorial Health Officers as a body competent to deal with problems in the field of vital and health statistics. It is supported jointly by the States and the Federal Government, with a secretariat furnished by the National Office of Vital Statistics. Its decisions are its own and are entered into by

agreement, after opportunity for free discussion has made joint planning a reality.

In large measure the promotion of agreement on procedures and related matters is the responsibility of the national focal point of coordination. But it is interesting to realize that a similar mechanism for coordination on a worldwide scale is now emerging through the action of the World Health Organization, which has urged all nations to set up national committees on vital and health statistics. The establishment of such committees in many nations of the world, with the aim of bringing about direct participation by national technicians in the technical problems of an international nature, has launched yet another mechanism to promote better coordination. The first international conference of national committees on vital and health statistics has been scheduled for the fall of 1953.

All these recent developments lay heavy emphasis on participation and consent of all parties concerned, for the coordinating responsibility should not be exercised arbitrarily or unnecessarily. In essence, this means that each higher level of responsibility and authority should justify the need for introducing uniformity into a particular procedure before this right is surrendered by the technicians who operate closer to the people concerned. Unless this precaution is observed, the system as a whole will lose its flexibility and adaptability. Complete uniformity in all vital record and vital statistics activities is neither necessary nor desirable. Custom-tailoring in basic patterns, with flexibility to adapt the procedures community by community to fit special circumstances, is often the only way to meet registration problems.

At the same time the National Office of Vital Statistics cannot relinquish authority for control over the consistency of national vital statistics. Vital statistics of a country have little value unless they are internally consistent. In production of national vital statistics by the use of the statistics produced by State offices, the requirement of consistency becomes all-important. Agreements are not enough. Consistency in practices is so vital that the degree of consistency must be checked adequately and

continually, and alternative procedures must be available for use if consistency is not maintained.

#### *Training and Educating Personnel*

The fourth element of a coordinated system is to provide means of training and educating personnel. Vital statistics offices at all levels are handicapped by a severe shortage of personnel with sufficient academic and practical training in the techniques of vital registration and vital statistics. Training is a matter of deep concern to all levels of government. It is carried out through in-service training programs when these are practicable, through formal courses in public health schools, and through organized seminars designed to teach practical skills. The Point IV program at the international level is an effort directed at developing knowledge and skills through grants-in-aid, training centers, consultation, and other means.

#### *Citizens Abroad and Naturalized Citizens*

Vital records of American citizens abroad and of naturalized citizens at home and abroad should become an integral part of a coordinated system of vital records and statistics, if it is to be effective as a whole. A conservative estimate of the number of American citizens outside the United States during 1952 would be over 1,500,000. While abroad, many of them marry, have children, obtain divorces, or die. Records of these events are made and filed according to a multitude of foreign laws and practices; certain other records may be made—by various Federal and State agencies—when the citizen or his family comes back. But there is no single national focal point of coordination, no single custodian of such records. Considerable confusion and hardship result, for example, when a family returns from a tour of duty overseas and attempts to settle down in an American community. Are the children citizens? Are they of school age? If the parents have no records to prove such facts, where can they get them? Similar problems plague naturalized citizens, and families that have adopted children born overseas. Undoubtedly, Federal legislation will be required to straighten out this problem. While details remain to be worked

out, those who have studied the matter are in general agreement that coordinating and custodial responsibility must be vested in a single Federal agency.

#### *Annual and Cyclic Records*

Means for coordinating the planning and production of annual and cyclic vital statistics are a sixth essential element of a coordinated system. Most of the cyclic production is on an annual basis, but for many series the cycle may be shorter—for example, the “disease year” for polio and other diseases—or longer, as for the variety of series based on the decennial census. The objective is not only to produce these series at maximum efficiency but to shape the output of facts so as to enrich their significance and value to society. While the National Office of Vital Statistics has primary responsibility for this type of coordination, it must work closely with State and international agencies, including consuming agencies as well as producers.

#### *Special Studies*

Means for coordinating the planning and parceling out of vital statistics special studies are a seventh element of a coordinated system. In its historical development, vital statistics organizations have emphasized massive, overall statistics—based on all birth certificates or all death certificates, and so on. A way must be found to obtain greater balance and variety by replacing this approach, wherever practical, with sampling statistics and special studies. Instead of including every item on all certificates, desired supplementary items might be added in only one or two States, or for short periods of time. Through these and other types of studies on limited groups, a broad variety of sample data could be assembled from which to interpret the massive data. Studies undertaken in one area should be designed so that results will be applicable in many other areas. By a planned distribution of the work among statistics agencies at all levels of government, the significance of the total output could be greatly increased.

#### *Population Estimates for Small Areas*

An eighth essential element is the provision of population statistics and population esti-

mates for small areas. Adequate population data for computation of vital statistics rates are indispensable to the vital statistics field. The production of national population census data and estimates is a responsibility of the Census Bureau. Since the greatest use of both health statistics and vital statistics is made at the local level, population estimates must also be made available for small areas as well as for the country as a whole and for the States. The lack of adequate estimates of population for small areas has recently brought about an active and aggressive movement of State registrars and public health statisticians to promote a mid-decennial population count in 1955, but the prospects of achievement appear dubious.

Resources should be found to approach the problem of developing new procedures for estimating the population of small areas. This would seem to require a cooperative program on the part of the States, the Bureau of the Census, and the National Office of Vital Statistics to explore the potentialities of school census material and every other available source of relevant data.

#### *Morbidity Statistics*

Morbidity statistics, including morbidity reporting and health surveys, are closely related to vital statistics, though not an integral part. As mentioned earlier, they are linked to vital statistics through a common classification for sickness and cause of death. In addition, both morbidity and mortality data are needed for case-fatality rates.

Sampling studies and health surveys are also closely related to vital statistics. It is necessary for both sickness statistics and those of birth, death, marriage, and divorce to relate such events to the way people live. In the future, vital statistics must be concerned to an increasing degree with sampling studies designed to broaden interpretation of the data. In particular, study should be made of the population type of survey mechanism, which offers a means of filling the gaps in our knowledge and, at the same time, holds forth the possibility of broadening the interpretation and usefulness of existing reservoirs of clinical, hospital, and health data.

### *Cross-Indexes*

In the long run, a coordinated system of vital records and statistics might well take advantage of the values inherent in cross-indexing the conglomeration of vital records that are created for each individual throughout his lifetime. Such an index, operating on a national scale, may ultimately be needed not only to serve the record needs of our mobile population, but also to facilitate the longitudinal and followup studies required for medical research and public health. Fear has been expressed by some persons that such an index might serve repressive purposes, but many others feel that the strength of our democratic institutions gives sufficient security to the individual. To bring a national index into being would require, of course, a Federal enabling act, a national focal point, and a series of complementary State laws and regulations.

### **Conclusion**

These then are some of the elements which deserve consideration in the formulation of a coordinated system of vital records and statis-

tics. But whatever the number of elements, however defined and located, there is no solution to the complex and enormous problems posed to the producers and users of vital records unless considerable uniformity can be introduced into the methods, forms, and definitions used by localities, States, nations, and the international agencies. Great strides have been made in development of a focal point which would work consistently for the coordination of vital records throughout this country.

In the immediate future lies a much more intensive campaign to improve the coordination of vital statistics through the extensive development of special studies and health surveys aimed at broadening the interpretation and significance of vital statistics in relation to other types of social and health information.

Perhaps most important of all is to stimulate the creation of a concept of a coordinated system of vital records and vital statistics. The concept of such a system must be developed as a whole, and it must be a concept to which all involved can wholeheartedly subscribe and which—primarily—will satisfy the needs of its millions of users.

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## **Assistants to the Secretary Appointed**

**Georgia France McCoy** of Oklahoma City, Okla., has been appointed assistant to the Secretary of the Department of Health, Education, and Welfare.

Since 1949, Mrs. McCoy has held administrative and research positions in the department of physical medicine and rehabilitation at the New York University-Bellevue Medical Center in New York City. Recently she was executive administrator of a gerontological service at the medical center.

Mrs. McCoy has had many years of public service in administering social work activities.

**Donald M. Counihan** has been appointed assistant to the Secretary of the Department of Health, Education, and Welfare. He will serve as legislative liaison officer.

Mr. Counihan received his law degree from Marquette University in 1946 and engaged in private practice in Milwaukee prior to serving as administrative assistant to U. S. Representative Charles W. Kersten of Wisconsin in 1947 and 1948. In private practice in Washington, D. C., before his recent appointment, Mr. Counihan is a member of the American, Wisconsin, Milwaukee, and District of Columbia Bar Associations.